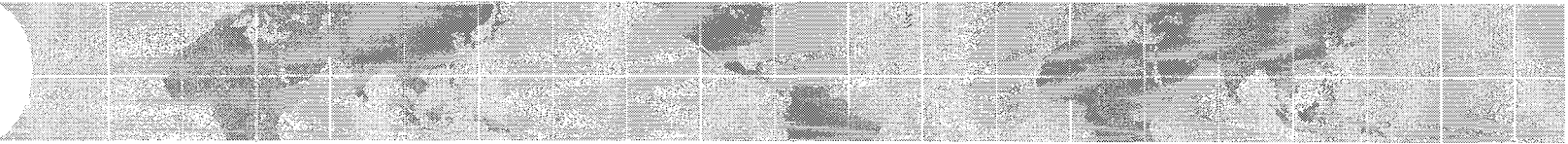
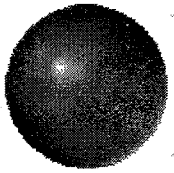


Loop Unbundling and Impairment

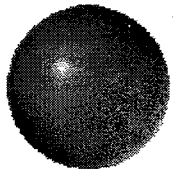
Separating Fact from Fiction

AT&T Presentation
October 7, 2002



Overview

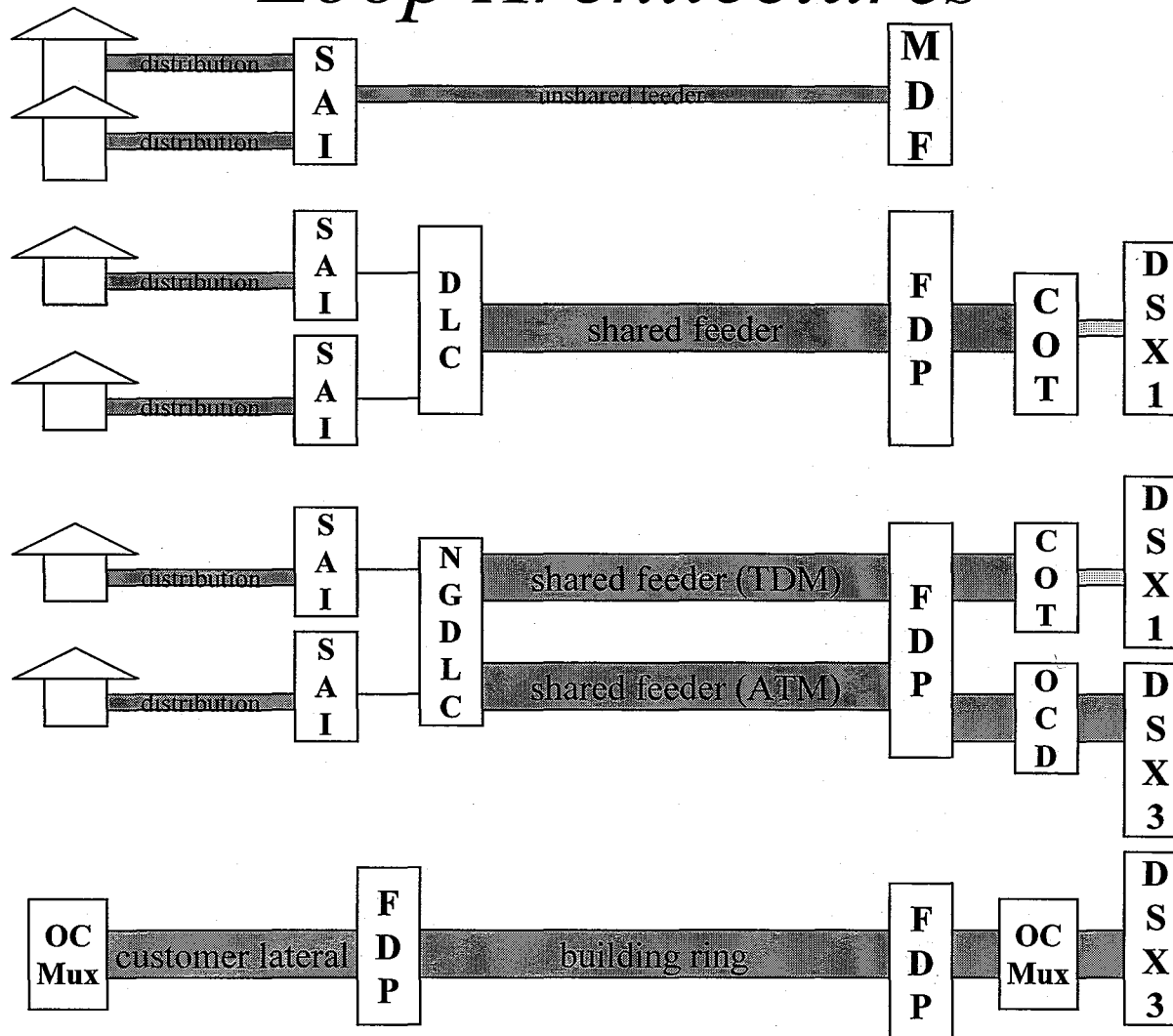
- Currently Deployed Loop Architectures
- CLEC Loop Impairments
- Correcting the Record on Self-Provided Loops
- Lack of Meaningful Triggers

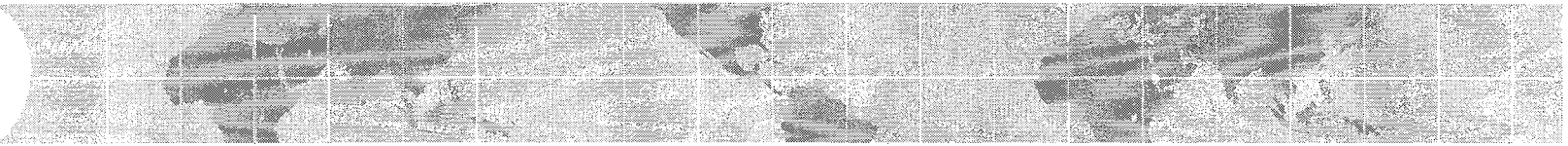
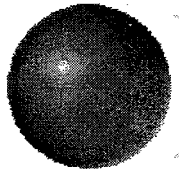


Loop Architectures

- Fundamentals – regardless of loop capacity:
 - Loops connect one customer location to one service provider's network
 - Infrastructure costs are mostly a function of facility length, not facility capacity
 - Economies of scale and design flexibility are a direct outgrowth of serving large amounts of demand in small geographic areas
 - Customer-specific investment is not re-useable, so those sunk costs must be minimized
 - Electronics provide the opportunity to share costs

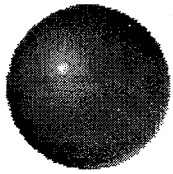
Loop Architectures





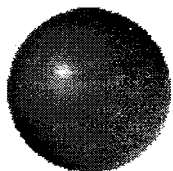
Loop Architectures

- Loops are defined based on the nature of the signal that can be exchanged at the interface
- The same loop architectures can support a variety of loop interfaces
- Impairments relate to the ability to efficiently deploy an infrastructure that supports the desired loop interface



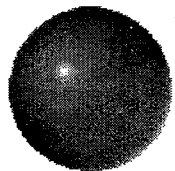
All-Copper Loops

- There is no serious challenge that CLECs are impaired without access to all-copper loops, because it is conceded that:
 - Loop plant is characterized by enormous economies of scale and scope
 - Recognized in both *Verizon* and *USTA*
 - Loop plant requires huge fixed costs
 - Loop costs are sunk
 - ILEC economists agree that sunk costs can deter entry even when there are no economies of scale (although local telephony is characterized by both)
- No competitor has ever attempted to overbuild copper loops – including DS1 loops, which are typically provided over copper facilities



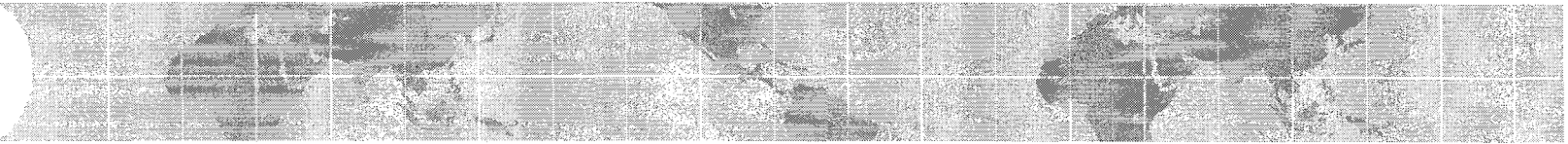
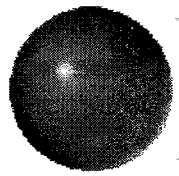
All-Copper Loops

- Transmission networks (including loops) are high fixed cost investments
 - built to serve an entire geographic serving area
 - built to support a single provider
- Most costs of transmission facilities are in the supporting infrastructure (poles, conduit, trenching, ROW, building access), not the conductor
- ILECs design their networks using “fat” feeder facilities and “thin” distribution facilities to spread the high fixed costs over the largest volumes of loops practical, giving them far lower unit costs than CLECs over the *entire range of demand*
- CLEC loop investment and recurring cost disadvantages range from 65% to 87% based on the FCC Synthesis Model



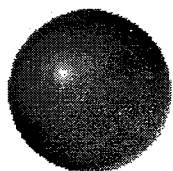
All-Copper Loops

- ILEC networks are characterized by significant excess capacity -
 - precisely to avoid the need to build additional infrastructure
- ILECs can typically accommodate new customers and demand by relatively minor incremental modifications to their existing loop plant
- Thus, there are virtually no "greenfield" locations where ILECs have to construct as many facilities as a new entrant
- ILECs are also increasingly deploying DLC technology in their loops, which allows multiplexing and the introduction of fiber feeder that only make the ILEC facilities even more efficient



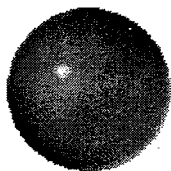
High Capacity Fiber Loops

- There is no fundamental economic /or engineering difference between traditional copper-based loops and "high capacity" fiber loops
- All of the ILEC advantages that apply to copper loop plant also apply to high capacity loops
- Even where a CLEC has built a local fiber ring to serve an area, it is typically much more difficult for a CLEC to construct a "lateral" facility to access a particular building, because it
 - Must use a pre-engineered splicing point as the connection point to the ring, which may be hundreds or even thousands of feet away
 - Typically cannot use ILEC ROW to access such points
 - Needs permission from both the municipality and the building owner for such construction
 - Requires high cost and is time consuming



CLEC Impairment

- Impairment can be demonstrated by comparing the up-front costs of facilities deployment with the potentially addressable market – and also recognizing that such costs are mostly sunk
- Unit costs equal Facilities Cost/[market size * market share]
 - ILECs started earlier at 100% share
 - CLECs started only recently and a 0% share
- The unit cost disadvantages of a CLEC effectively equal the ratio of the ILEC's share to an individual CLEC's share – or one to two orders of magnitude
- Extremely inefficient to encourage loop overbuilding

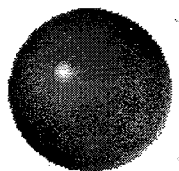


CLEC Impairment

		copper (per foot)				fiber (per foot)		
		aerial		U/G		aerial	buried	U/G
		200	4200	200	4200			
per cable	engineering	\$ 0.44	\$ 0.44	\$ 0.44	\$ 0.44	\$ 0.04	\$ 0.04	\$ 0.04
	1st conductor (cable)	\$ 0.30	\$ 2.72	\$ 0.30	\$ 2.72	\$ 0.88	\$ 0.97	\$ 1.02
	construction (structures) ¹	\$ 4.11	\$ 4.11	\$ 66.31	\$ 66.31	\$ 2.78	\$ 22.73	\$ 66.15
	subtotal	\$ 4.86	\$ 7.28	\$ 67.06	\$ 69.48	\$ 3.70	\$ 23.74	\$ 67.21
per conductor	engineering	\$ 0.001	\$ 0.001	\$ 0.001	\$ 0.001			
	added conductors	\$ 0.007	\$ 0.002	\$ 0.007	\$ 0.002	\$ 0.037	\$ 0.030	\$ 0.032
	construction (structures) ¹	\$ 0.003	\$ 0.003	\$ 0.003	\$ 0.003			
	cost per added conductor	\$ 0.011	\$ 0.006	\$ 0.011	\$ 0.006	\$ 0.037	\$ 0.030	\$ 0.032
		0.22%	0.08%	0.02%	0.01%	1.00%	0.13%	0.05%

1. Construction a function of loop density zone -- figures reflect average of three most dense zones

2. All figures based on HAI Model Release 5.2 Input for Feeder Plant



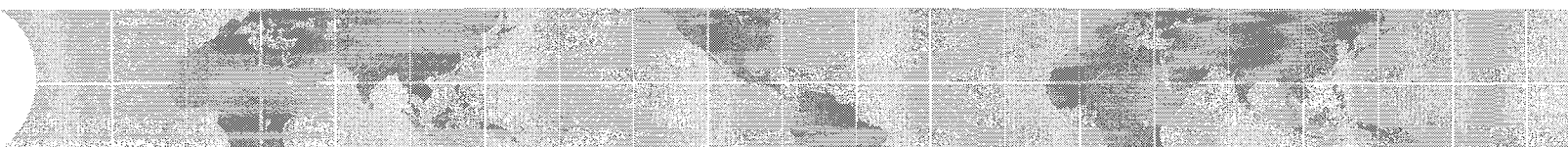
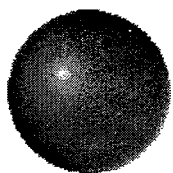
CLEC Impairment

avg ILEC LSO size	CLEC office size required to offset backhaul back haul penalty per line per month				
	1	2	3	4	5
5,000	5,065	5,132	5,200	5,270	5,343
10,000	10,263	10,541	10,833	11,143	11,471
15,000	15,600	16,250	16,957	17,728	18,572
20,000	21,081	22,286	23,637	25,162	26,898
25,000	26,713	28,677	30,953	33,622	36,795
30,000	32,500	35,455	39,002	43,336	48,754
35,000	38,451	42,658	47,897	54,604	63,496
40,000	44,572	50,324	57,781	67,833	82,117
45,000	50,871	58,502	68,829	83,582	106,384

CLEC Impairment

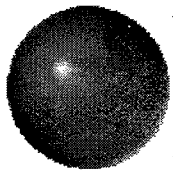
backhaul penalty = \$3/mo	Office that must be penetrated in order to achieve scale to offset backhaul at various average business line share in each office				
avg ILEC LSO size	2%	4%	6%	8%	10%
5,000	157	79	53	40	32
10,000	163	82	55	41	33
15,000	170	85	57	43	34
20,000	178	89	60	45	36
25,000	186	93	62	47	38
30,000	196	98	66	49	40
35,000	206	103	69	52	42
40,000	217	109	73	55	44
45,000	230	115	77	58	46

backhaul penalty = \$5/mo	Office that must be penetrated in order to achieve scale to offset backhaul at various average business line share in each office				
avg ILEC LSO size	2%	4%	6%	8%	10%
5,000	161	81	54	41	33
10,000	173	87	58	44	35
15,000	186	93	62	47	38
20,000	202	101	68	51	41
25,000	221	111	74	56	45
30,000	244	122	82	61	49
35,000	273	137	91	69	55
40,000	308	154	103	77	62
45,000	355	178	119	89	71



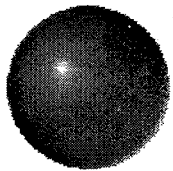
CLEC Impairment

- ⊕ Even in the small number of locations where a CLEC might be able to capture sufficient business to consider deploying a high capacity fiber loop, existing ILEC facilities typically have excess capacity and/or facilities that can be upgraded without the need for construction – giving the ILEC both a significant timing and cost advantage over CLECs
- ⊕ Customers are also reluctant to wait for the CLEC to build its own facilities
- ⊕ CLECs cannot risk investing significant sunk costs in constructing building “laterals” without assurance of business
- ⊕ Access to ILEC ROW/conduit (even if possible) does not help the CLEC
 - CLEC junction points to their local rings are not in the same place as the ILEC ROW



CLEC Impairment

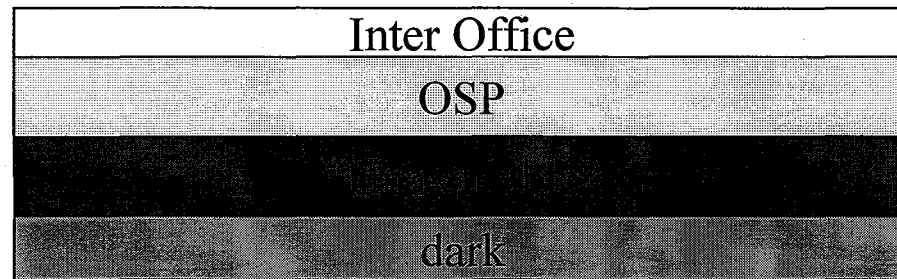
- ⊕ And even in the (more) limited cases where a CLEC might be able to approach the ILEC's average unit costs and overcome customer timing problems relating to construction, they also face huge building access disadvantages
- ⊕ ILECs have historically had access to all existing buildings and, as the dominant provider, are welcomed into all new buildings
- ⊕ CLECs lack similar access, because private building owners do not provide comparable access to CLECs – as demonstrated in the *Building Access* proceeding
 - ⊠ Landlords concede they offer CLECs worse rates and T&Cs than ILECs
 - ⊠ CLECs face prolonged negotiations compared to ILECs
 - ⊠ CLECs are limited to "fiber to the floor" arrangements in the large majority of cases, limiting growth possibilities for deployed loops



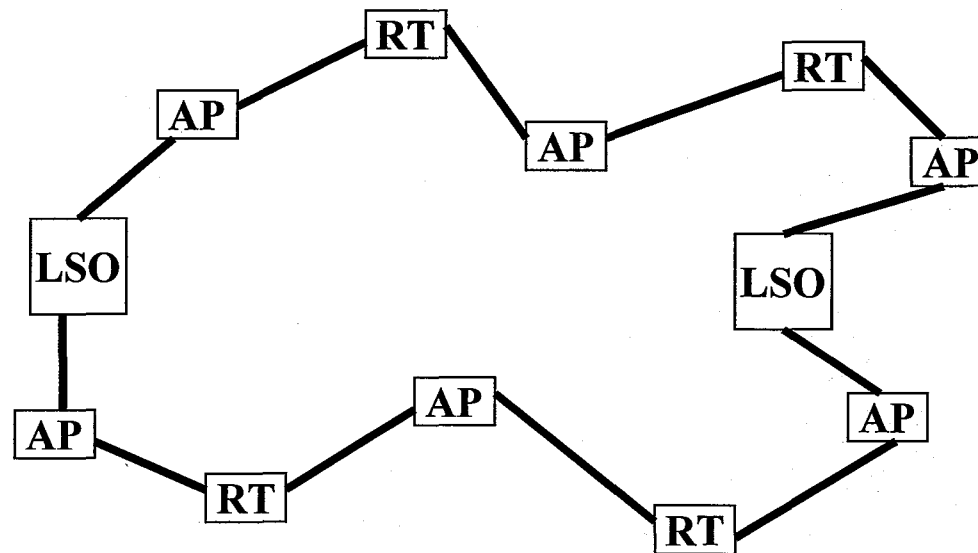
CLEC Impairment

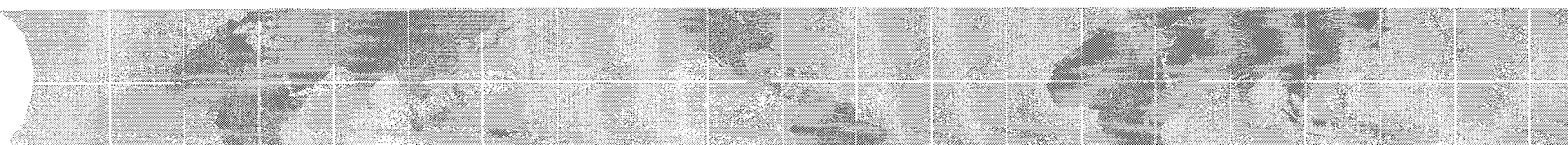
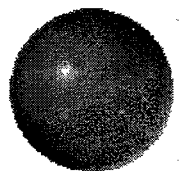
- ⊕ Most ILEC LSOs are currently connected with fiber cables that have extensive "extra" fiber strands
- ⊕ Most of the cost of a facility is in deploying the conductor – not in the terminal equipment
- ⊕ While CLECs face huge upfront construction cost (and other impairments) to deploy capacity, ILECs face only minor costs to upgrade terminal equipment capacity or to light new strands
- ⊕ The net result is that the ILEC's incremental costs in most spans is below TELRIC

Impairment

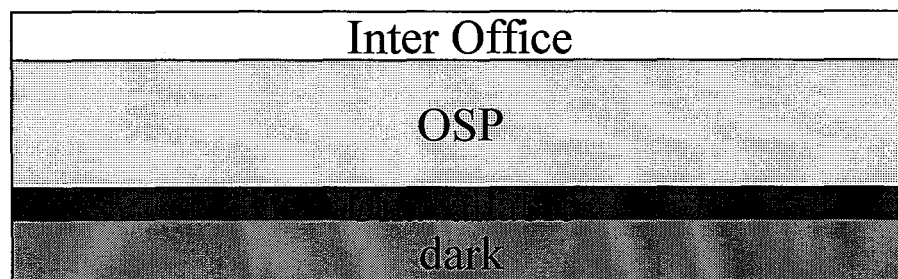


uses of
strands in
ILEC fiber
cable

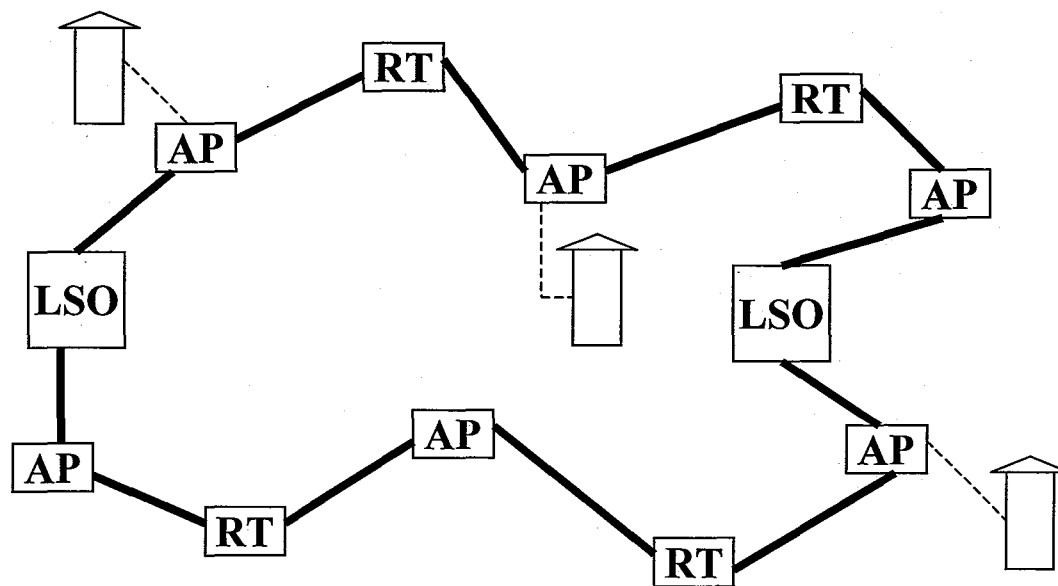


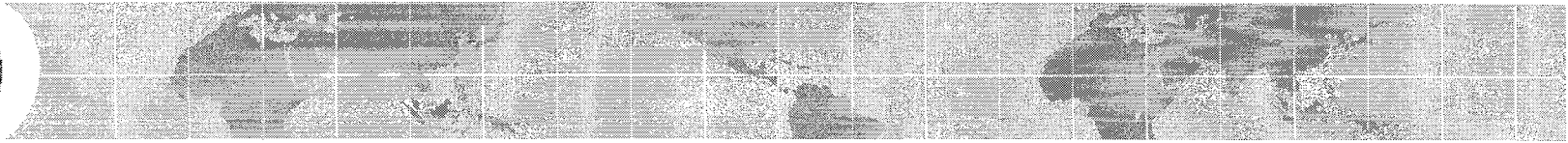
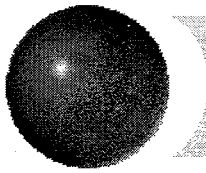


Impairment



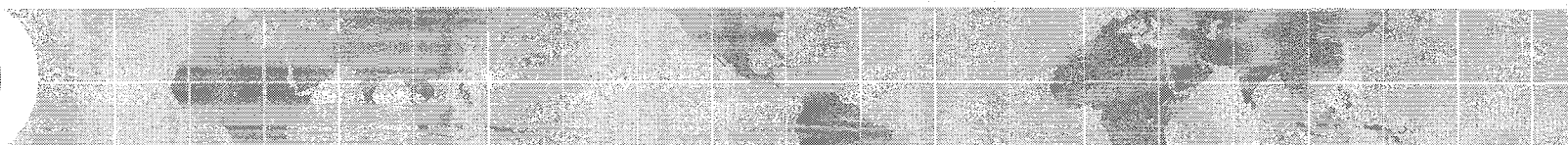
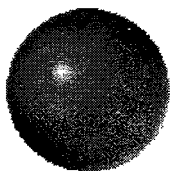
uses of
strands in
ILEC fiber
cable





ILEC Claims Regarding Self-Provided Loops Are Wrong

- Contrary to ILEC claims, few CLECs have self-deployed loops, because there are
 - Extremely limited opportunities to efficiently overbuild
 - Significant impairments where building might otherwise prove economic
- ILEC estimate of 16-23M self-provided loops for local is based on an obviously flawed analysis that ignores the fact most “CLEC” loops used for local are purchased using special access
- Public and verified data show only about 6M VGEs (not physical loops) are self-deployed OR provided by purchasing Special Access

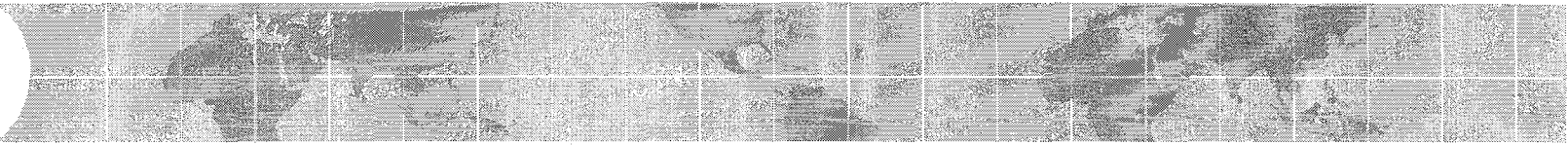
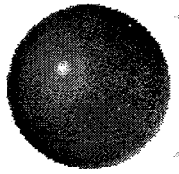


ILEC Claims Regarding Self-Provided Loops Are Wrong

- ◆ The RBOC 911-based estimation of self-provided loops is seriously flawed:

$$\textbf{\textit{self-provisioned loops = business 911 listings - business UNE-L}}$$

- ◆ Fallacies of the Approach
 - ▣ assumes one 911 listing per loop
 - area code splits duplicate listings
 - multiple listings per DS1 trunk
 - ▣ assumes 1/2 of UNE-L loops are for residential customers
 - ▣ assumes no high capacity UNE-L yield any 911 listings
 - ▣ ignores the pervasive use of Special Access in lieu of loop UNEs

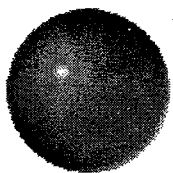


ILEC Claims Regarding Self-Provided Loops Are Wrong

- ⊕ Likewise, the "Interconnection Trunk" method is similarly unreliable

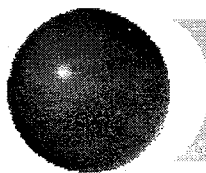
$$\text{self-provisioned loops} = (\text{interconnection trunks} * 2.75) - 3\text{M Residential Self-deployed loops} - 1.5\text{M Business UNE-L}$$

- ⊕ Fallacies of the Approach
 - ▣ assumes interconnection trunks utilized to 100% of capacity
 - ▣ projects a 1998 SBC line:trunk ratio as the "national norm"
 - ▣ ignores any use of Special Access in lieu of UNE-L



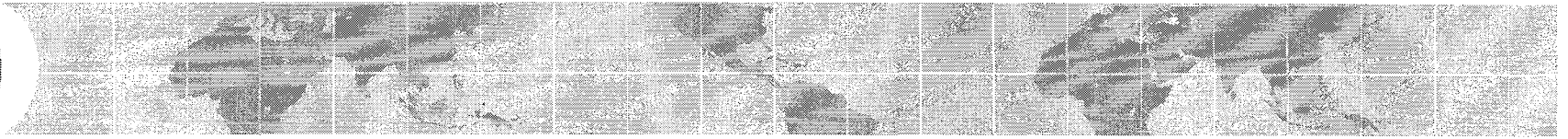
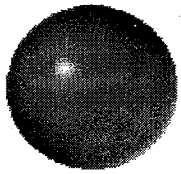
The Real Story Regarding Self-Provided Loops

- The Commission's Local Competition Report provides a reliable basis to quantify self-provisioned loops
 - Table 3 shows 6.072M VGE of "CLEC-owned" lines.
 - True self-provided local VGEs are in the range of 1.1 to 1.9 M VGE (not the 11 to 20M asserted by the RBOCs)
 - Industry estimates are that there are only about 50K buildings that are likely candidates for fiber loops
 - Most "prime" locations have already be placed on-net by someone
- Substantial additional fiber loop penetration by CLECs is unlikely



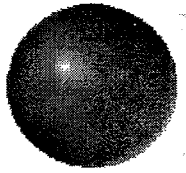
Summary

- Overbuilding of loop plant is impractical for competitors
- The impairments to replicating loops are basic
 - The costs are mostly due to the first customer and those are substantial
 - Unit costs of two carriers serving the same general area will be inversely proportional to their relative shares
 - The incumbent monopoly provides a unit cost advantage of 10 to 100 times compared to individual CLECs
- Prior deployment of fiber facilities gives the ILEC the ability to add new capacity at negligible incremental cost, while CLECs incur costs equal or greater than TELRIC
- A CLEC has virtually no ability to replicate loop functionality to an individual customer where less than a few DS3s of capacity are required
- Even where replication may be economically feasible, CLECs face significant additional hurdles, including lack of ROW and inferior building access
- ILEC claims regarding CLEC self-deployment of loops are a gross distortion based on patently incorrect methodologies
- Continued loop unbundling – regardless of capacity – is fundamental to encouraging facility-based competition.



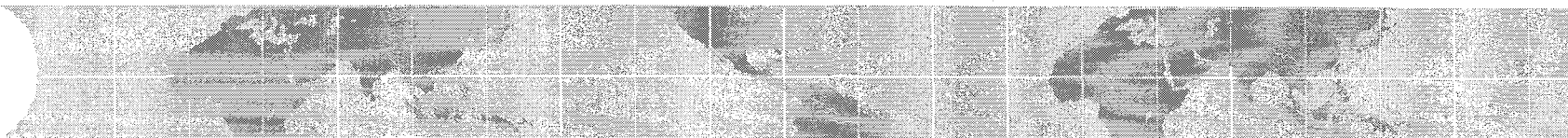
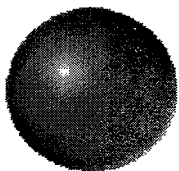
Unbundled Access to Unified Loops — A Competitive Necessity —

*AT&T Presentation
October 7, 2002*



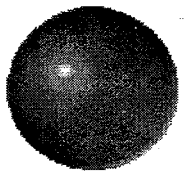
Unified Loop Overview

- ⊕ CLECs are impaired without unbundled access to unified loops that incorporate NGDLC electronics
 - ▣ Alternatives to access to unified loops, including self-provisioning of loop facilities, collocation at (or near) remote terminals, and/or utilization of all-copper loops are
 - prohibitively expensive
 - materially inferior to NGDLC loops with access at the CO and/or
 - technically impracticable
 - not conducive to mass market applications
- ⊕ ILEC outside plant upgrades cannot alter the simple fact that unified loops are just loops connecting one customer to one local carrier; they are not packet switched networks
- ⊕ Unbundled access to unified loops requires consistent application, but not significant modification of, existing Commission rules



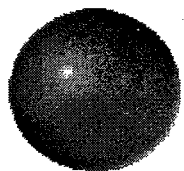
Unified Loop Overview

- Competition for local data *and* voice services will be stifled if CLECs cannot efficiently access all of their customers' "bits"
- Continuing to deny access to unified loops will further shrink CLECs' addressable markets as NGDLC upgrades are made
- Cable modem services do not provide a cognizable alternative to unified loop unbundling
- Unbundling unified loops will not negatively impact ILEC investment but instead permits broader cost sharing
- Failure to unbundle unified loops reduces CLEC incentives to invest in packet switching



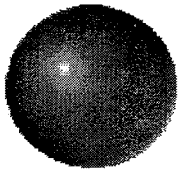
CLECs Are Impaired Without Unbundled Access to Unified Loops

- CLECs lack the ILECs' existing customer base and facilities, and cannot practically or economically replicate the loop element -- unified or otherwise
- RT/SAI collocation is prohibitively expensive and technically impracticable in virtually all circumstances
- All-copper loops are not a viable substitute for unbundled access to unified loops; in many cases they are (i) unavailable, (ii) in poor condition or (iii) too long to support high bandwidth transmissions
- The impairment analysis does not vary in any meaningful way across any potentially relevant geographic market



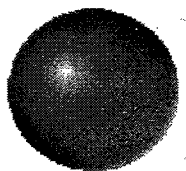
Impairment – Self-Deployment Is Not a Viable Alternative

- Unified loops cannot be replicated by competitors, because
 - The ILECs' ubiquitous embedded networks, combined with their control over the local market, provide them with insurmountable cost and timing advantages
 - CLECs cannot aggregate sufficient demand from mass-market customers to offset the enormous cost disparities that result from the ILECs' ubiquitous loop plant, which is directly connected to ILEC switches (but not to CLEC switches)
 - ILECs' economies of scale and scope were built up over a century of monopoly protection and rate payer contribution
 - Addition of NGDLC capabilities to existing copper-based loops simply increases the ILECs' existing advantages
 - All loop investment requires high fixed and sunk costs



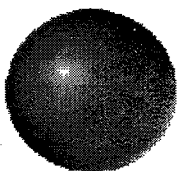
Impairment – RT/SAI Collocation Is Not a Viable Alternative

- ILECs concede that remote collocation (at either the RT or the SAI) is often physically impossible
- Even in the limited instances where remote collocation may be physically possible, obtaining remote access is both prohibitively costly and time consuming and is usually implemented on a case-by-case basis with little standardization
 - CLECs' ability to aggregate at RTs is much more limited than at Central Offices – a single digit market share of 1,000-2,000 loops cannot support remote collocation
 - Remote collocation at "TOPIC"-type arrangements is costly, time-consuming and on an individual case basis
- Manufacturers and ILECs oppose remote collocation
- Line card collocation is impractical



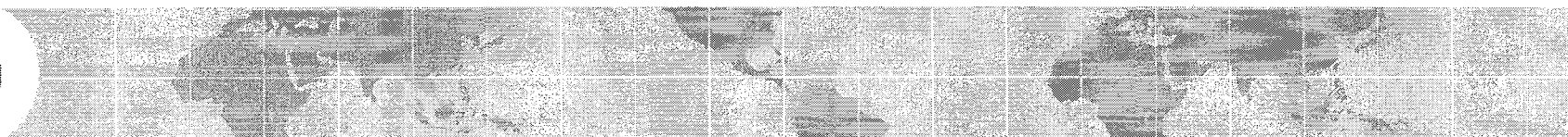
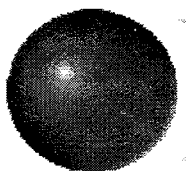
Impairment – All-Copper Loops Are Not a Viable Alternative

- All-copper loops:
 - Provide an inferior level of service even where they are available and where short enough to permit delivery of DSL-based services
 - Will likely become expensive or impossible to maintain over time as ILECs replace copper loop infrastructure with DLC technology at an increasingly rapid rate
 - Raise significant quality of service issues because of interference concerns or poor condition
 - Represent an unwarranted use restriction upon the CLECs' access to the full functionality of an unbundled loop



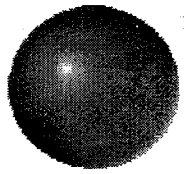
Unified Loops Are Loops

- Loops connect customer premises with ILEC central offices, *not* customer premises and remote terminals (§ 51.319(a)(1)) and are not restricted to analog voice services
- ILEC unified loop upgrades expand transmission capacity, the basic functionality of existing loops; they do not create new network elements
- Unified loop facilities do not provide any “packet switching” functionality – one customer is connected to one service provider’s network (where the packet switching is performed)
- Failure to require unbundled access to unified loops would be patently discriminatory -- it would allow only the ILEC to access the entire spectrum on the loop, denying CLECs access to the *same* functionality on the *same* loops and the opportunity to bring different and enhanced services to consumers



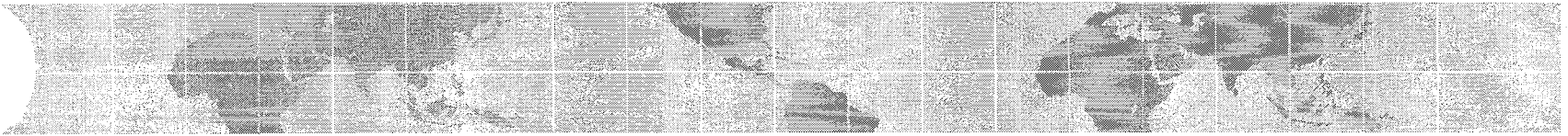
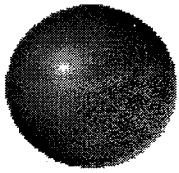
Current Rules Require Little Modification to Address Unified Loop Unbundling

- “The local loop element is defined as a transmission facility between a distribution frame (or its equivalent) in an incumbent LEC central office and the loop demarcation point at an end-user customer premises” (§51.319 (a)(1))
- There is no question that access to unified loops is technically feasible
- AT&T seeks only to be assured of the ability to access unified loops at the ILEC central office as a UNE
 - AT&T is not seeking the right to access ILEC packet switching as a UNE
 - AT&T does not seek a UNE-P version of DSL
- The end of the loop for data signals must be established as the OCD or similar device, *i.e.*, the *first place* a CLEC can access its customers’ signals
 - In this configuration, the OCD provides a static connection between a customer’s premises and its chosen carrier; it does not perform packet switching
- Given the small number of NGDLC loops in most offices, CLECs should be permitted to obtain loop access using EELs/aggregation points



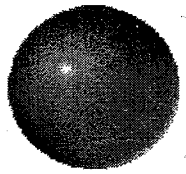
Current Rules Require Little Modification to Address Unified Loop Unbundling

- “Attached electronics” are part of a loop (§ 51.319 (a)(1))
- The only necessary modification is to clearly provide that remotely deployed electronics (including DSLAM functionality) should be considered part of the loop because they perform multiplexing -- a *transmission* (not switching) functionality
- The Commission’s rules (§ 51.307(c)) already require that CLECs be provided with access to the entire loop, with all its features, functions and capabilities in a manner that is technology and service neutral
 - Service- and technology-based distinctions would encourage ILECs to “hide” loops from competitors
 - Verizon’s PARTS tariff represents such an effort



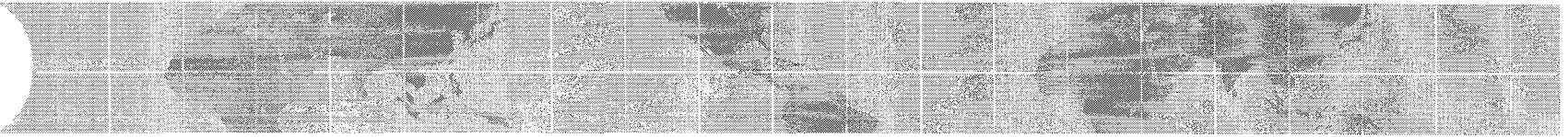
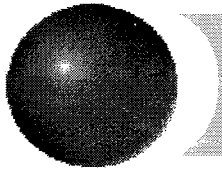
Failure to Adopt Unified Loop Unbundling Will Continue to Stifle All Local Competition, Both Data and Voice

- Full local competition depends on the CLECs' ability to offer *both* voice *and* data services to compete with ILECs that deploy next generation loop architecture
- UNE-P access for voice services must be assured in the NGDLC architecture
- CLECs cannot provide service at all if they cannot efficiently access their customers' premises and connect them to the CLECs' networks
- Lack of efficient CLEC access through unified loop unbundling means there will be significantly less – and in some cases no – competition, which will not support the Act's goal to accelerate high speed access for all Americans
- Preventing CLEC access to unified loops creates a huge disincentive to CLEC investment in packet switches and other equipment needed to provide DSL-based services that depend on access to the unified loop



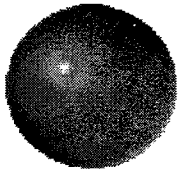
Failure to Adopt Unified Loop Unbundling Will Continue to Stifle All Local Competition, Both Data and Voice

- ⊕ The Commission's delay in assuring CLECs have unbundled access to unified loops played a significant role in the ILECs' rapid acquisition of approximately 90% of all residential and business DSL customers
- ⊕ ILECs are using their dominance in DSL to block CLECs' access to *both* DSL and voice services
 - ⊠ ILECs have required customers to subscribe to ILEC voice service as a condition of obtaining DSL-based services
 - ⊠ ILECs have refused to engage in line splitting and will not allow customers to use CLEC-provided voice services with their DSL service
 - ⊠ ILECs refusal to convert voice customers to UNE-P if they have ILEC DSL service
 - ⊠ "ILEC DSL on the line" is the most commonly received response for UNE-P rejection orders
- ⊕ As ILECs install fiber and associated electronics for both voice and DSL services, competitors have lost, and will continue to lose, access to retail customers for voice as well as data services



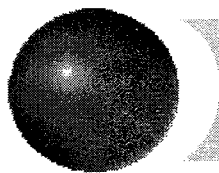
Cable Modem Services Are Not a Cognizable Alternative to Unified Loop Unbundling

- ⊕ Intramodal competition is the only type of competition that enables CLECs to compete against ILECs in offering bundled voice and DSL services offerings
- ⊕ Lack of access to unbundled unified loops would completely foreclose intramodal competition, because CLECs do not have access to cable plant and cannot afford to overbuild such plant to provide DSL service
- ⊕ Critically, even the ILECs' lead economist (Dr. Alfred Kahn) acknowledges that "carriers need to offer packages of services if they are to compete successfully"
- ⊕ Intramodal competition is necessary to keep ILEC DSL prices in check
- ⊕ Relying solely on cable competition results at best in a duopoly for broadband, not a competitive market



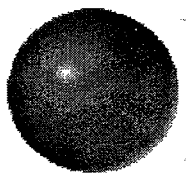
The 1996 Act Did Not Limit Unbundling Requirements to the ILECs' "Legacy" Networks

- The legislative history shows that Congress knew and understood the emerging technologies that were being developed and deployed by the ILECs, wireless companies, and cable companies when it required the ILECs to unbundled their networks
- Use of "broadband parity" arguments to eliminate intramodal competition ignores important distinctions in market power and assumed risk between ILECs, on one hand, and CLECs and cable companies on the other
- If Congress believed that cable and wireless competition alone would be sufficient to constrain ILEC market power, it would merely have required ILECs to provide interconnection



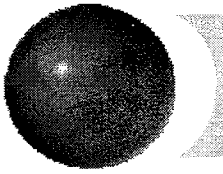
Unified Loop Unbundling Will Not Negatively Impact ILEC Investment

- ILECs have publicly committed to invest in loop upgrades and have already established DSL capability for a majority of their customers
- The loop infrastructure upgrades that ILECs are making today are incremental to the ILECs' existing monopoly networks and consist of modifications to the fiber investment they have already made to provide POTS more efficiently
 - Verizon in NY recently acknowledged that initial PARTS deployment is at RTs being upgraded to provide POTS relief (i.e., to add capacity at RTs)



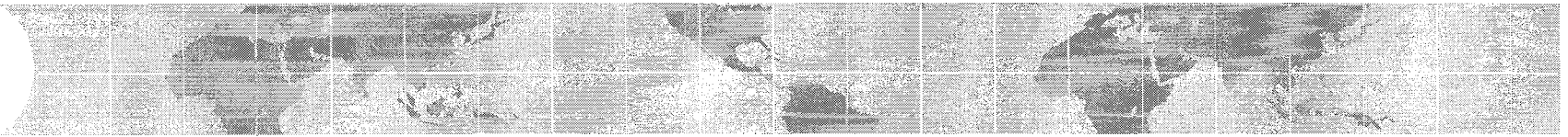
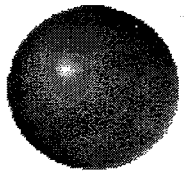
Unified Loop Unbundling Will Not Negatively Impact ILEC Investment

- BellSouth is "enthusiastic about the progress of its DSL business, both from a growth and an economic standpoint . . . The DSL business is projected to be EBITDA breakeven by YE02 . . . [and] solidly EBITDA positive in '03, bolstering overall margins" - 9/13/02 Lehman Brothers Equity Research report
- SBC's CEO claims that DSL is a bright spot because it reduces churn for its local services by 75% - 7/23/02 SBC Investor Update: 2nd Q Earnings
- Verizon's current business model "blunts the revenue and margin impacts of competition [by] driv[ing] profitable growth as we deliver on the promise of our scale and unleash the potential for innovation in our technology platforms." - 10/1/02 Verizon CEO Presentation at Communacopia IX
- ILEC threats to withhold investment without "additional upside" financials are nothing more than an attempt to secure additional monopolies for themselves and their data affiliates



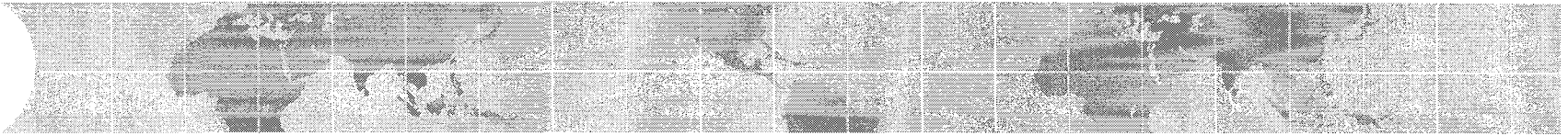
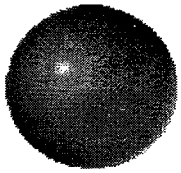
Unified Loops Do Not Provide CLECs with a “Free Ride” on ILEC Investment

- The Supreme Court held that TELRIC, properly applied, fully compensates ILECs for their costs and investment risks, plus a reasonable profit
- Unified loop unbundling is subject to TELRIC, which, by definition allows ILECs a reasonable return on investment on a risk-adjusted basis
- TELRIC rates will include efficient costs for additional equipment, *i.e.*, remote terminal electronics and OCD ports, which should be virtually identical to the ILECs' actual costs for such items
- ILEC claims that access to unified loops is expensive are unfounded
 - ILEC claims focus on CLEC access to customer loops in remote terminals, not access in ILEC central offices
 - AT&T has demonstrated that the costs of unbundled access to unified loops in ILEC COs are modest (and in all events are subject to recovery at TELRIC rates)



Summary

- Unified loops are loops
- Carriers cannot compete with ILECs in the provision of voice and high-speed services to mass market consumers without unbundled access to such loops
- There are no practical alternatives to the ILECs' ubiquitous local loop plant which is rapidly being reconfigured through the deployment of remote terminals and NGDLC
- If the ILECs are allowed to wall off significant segments of their local network from the 1996 Act's unbundling obligations simply by deploying remote terminals, the result will be
 - Entrenchment of the ILECs' local monopoly and,
 - At best, a cable/ILEC duopoly for broadband services



Summary

- ⊕ There is no technical impediment to unified loop unbundling
- ⊕ Current rules need only slight modification to confirm ILECs' duty to provide competitively meaningful, nondiscriminatory access to such local loops
- ⊕ Unified loop unbundling will not discourage ILECs investment in DSL, because TELRIC rates provide a reasonable return on risk-adjusted capital investment
- ⊕ Unified loop unbundling will encourage CLECs to invest in and deploy their own packet switching networks